

REMARKS

Claims 1-22 are pending in this application.

Claims 1-22 have been rejected.

Approval and entry of this amendment are respectfully requested.

Double Patenting

Claims 1-13 and 17-22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 and 14-19 respectively of U.S. Patent No. 6,292,439, *Akiba et al.*

In response thereto, a terminal disclaimer in compliance with 37 CFR 1.321(c) is concurrently filed to overcome this rejection.

Claims 14-16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,292,439, *Akiba et al.* in view of Liquid Crystals, Applications and Uses, Volume 1, by *Birenda Bahadur et al.*, 1990, (Chapters 7 and 10, especially pages 180, 242, 245, and 270).

In response thereto, a terminal disclaimer in compliance with 37 CFR 1.321(c) is concurrently filed to overcome this rejection.

Rejections under 35 U.S.C. §103(a), Obviousness:

Claims 1, 2, 5-7 and 9-22 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Ouderkirk et al.*, U.S. Patent 6,124,971 and further in view of Liquid Crystals, Applications and Uses, Volume 1, by *Birenda Bahadur et al.*, 1990, (Chapters 7 and 10, especially pages 180, 242, 245 and 270).

It should be noted that B. Bahadur et al (Liquid Crystals, Applications and Users, Volume 1) merely discloses providing color filters in a general liquid crystal device in which only absorption-type polarizing films are used. *Ouderkirk et al.* (U.S. Patent 6,124,971, WO 97/01788) discloses a reflection-type polarizing film, but it does not disclose positions of placement of color filters.

In the invention according to the application, a vivid metallic tone can be realized by disposing a color filter on a visible side of an absorption-type polarizing film, or between an absorption-type polarizing film and a reflection-type polarizing film.

The effect is that as described from line 26 of page 15 to line 19 of page 18 of the English translation of the Description, a display in yellow metallic color, that is nearly the color of gold, is realized by combining the yellow color filter and the reflection-type polarizing film. If the color filter is changed to a red color filter, a display in red metallic color can be realized.

As described above, a display in a vivid metallic color is realized by the structures of the invention. Hence, it is clear that the invention is not obvious from **B. Bahadur et al** or **Ouderkirk et al** in which an absorber (only black one is disclosed) is disposed on an underside of a reflection-type polarizing film.

In the outstanding Office action, it has been stated that:

"As to Claims 1 and 2, Ouderkirk discloses in claims 1, 2 and 8, (columns 16 and 17) all of the elements of claims 1 and 2, except the color filter disposed on the visible side of the absorption-type polarizing film, or between the absorption-type polarizing film and the reflection-type polarizing film."

The Applicant agrees with the Office noted shortcoming of Ouderkirk, but does not agree that it otherwise discloses or teaches all other claimed features. Independent claim 1, as amended, specifically recited:

"an absorption-type polarizing film disposed on a visible side of the liquid crystal cell, for transmitting light linearly polarized in a direction parallel with a transmission axis thereof, and absorbing light linearly polarized in a direction orthogonal to the transmission axis thereof;

a reflection-type polarizing film disposed on a side of the liquid crystal cell, opposite from the visible side thereof, for transmitting light linearly polarized in a direction parallel with a transmission axis thereof, and reflecting light linearly polarized in a direction orthogonal to the transmission axis thereof; and a color filter disposed on a visible side of the absorption-type polarizing film, or between the absorption-type polarizing film and the reflection-type polarizing film."

These features are simply not disclosed or taught in the applied prior art of record. Should the Office chooses to maintain this ground of rejection, a citation of where each of the claimed

features are disclosed or taught in the applied prior art of record is respectfully requested.

The Office action further stated that:

"Bahadur teaches the use of color filters between the polarizing films on page 245. Accordingly as evidenced by Bahadur, ordinary workers in the art would recognize the benefit of color filters between the polarizing films. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the liquid crystal display of Ouderkirk with the color filter of Bahadur to achieve color effects in any of a number of ways."

Regarding an obviousness rejection, section 706.01(j) of the MPEP has specifically stated that:

"To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claimed limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 466, 20 USPQ2d 1438 (Fed. Cir. 1991)"

It is respectfully submitted that the Office has not established a *prima facie* case of obviousness, because, 1) there is no motivational statement or incentive for the modified change other than to arrive at the claimed invention, 2) there is not any reasonable expectation of success for the Office suggested combination, and 3) the teaching or suggestion to make the claimed combination and the reasonable expectation of success cannot both be found in the prior art.

For the foregoing differences, independent claim 1 patentably distinguishes over the applied prior art of record; all claims dependent thereon, by virtue of inherency, also patentably distinguish over the applied prior art of record.

Since a *prima facie* case of obviousness has not been established in this Office action, it would be improper for the Office to provide a new ground of rejection and make the next Office action final, because it would effectively deny the applicant an opportunity to respond to the new ground of rejection.

Claims 3, 4, 8 and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over **Ouderkirk** in view of **Bahadur** as applied to claims 1, 2, 5-7 and 9-22, above, and further in view of **Hisatake et al.**, U.S. Patent 5,731,858.

As mentioned in the response to the previous rejection, independent claim 1 patentably distinguishes over the applied prior art of record; all claims dependent thereon, by virtue of inherency, also patentably distinguish over the applied prior art of record. Reconsideration and withdrawal of this rejection are respectfully requested.

CONCLUSION

In view of the aforementioned amendments and accompanying remarks, claims 1-22, as amended, are believed to be in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this response is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees which may be due with respect to this response, may be charged to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, WESTERMAN, HATTORI, LLP



Michael N. Lau
Attorney for Applicants
Reg. No. 39,479

Atty. Docket No. **990345**
Suite 1000
1725 K Street, N.W.
Washington, D.C. 20006
Tel: (202) 659-2930
MNL/rmf

Enclosures: VERSION WITH MARKINGS TO SHOW CHANGES MADE
H:\FLOATERS\MLAU\990345\Filings\990345 AMENDMENT.frm.2.frm

VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. **(Amended)** A liquid crystal display comprising:

a liquid crystal cell having a liquid crystal layer sealed in between a pair of transparent substrates thereof, having an electrode on each of the inner surfaces thereof, facing each other;

an absorption-type polarizing film disposed on ~~the~~ a visible side of the liquid crystal cell, for transmitting light linearly polarized in a direction parallel with a transmission axis thereof, and absorbing ~~the~~ light linearly polarized in ~~the~~ a direction orthogonal to the transmission axis thereof;

a reflection-type polarizing film disposed on ~~the~~ a side of the liquid crystal cell, opposite from the visible side thereof, for transmitting light linearly polarized in a direction parallel with a transmission axis thereof, and reflecting ~~the~~ light linearly polarized in ~~the~~ a direction orthogonal to the transmission axis thereof; and

a color filter disposed on ~~the~~ a visible side of the absorption-type polarizing film, or between the absorption-type polarizing film and the reflection-type polarizing film.

2. **(Amended)** The liquid crystal display device according to Claim 1 further comprising a light absorption film disposed on ~~the~~ a side of said reflection-type polarizing film, opposite from ~~the~~ a visible side thereof.

3. The liquid crystal display device according to Claim 1 further comprising a light scattering film disposed on the visible side of said absorption-type polarizing film.

4. **(Amended)** The liquid crystal display device according to Claim 1 further comprising a light scattering film disposed on the visible side of said absorption-type polarizing film, and a

light absorption film disposed on ~~the~~ a side of said reflection-type polarizing film, opposite from ~~the~~ a visible side thereof.

5. **(Amended)** The liquid crystal display device according to Claim 1 further comprising a backlight disposed on ~~the~~ a side of said reflection-type polarizing film, opposite from ~~the~~ a visible side thereof.

6. The liquid crystal display device according to Claim 5 further comprising a translucent film disposed between said reflection-type polarizing film and the backlight.

7. The liquid crystal display according to Claim 6, wherein the translucent film is an absorption-type polarizing film.

8. **(Amended)** The liquid crystal display according to Claim 1 further comprising a light scattering film disposed on the visible side of said absorption-type polarizing film, and a backlight disposed on ~~the~~ a side of said reflection-type polarizing film, opposite from ~~the~~ a visible side thereof.

9. The liquid crystal display according to Claim 8 further comprising a translucent film disposed between said reflection-type polarizing film and the backlight.

10. The liquid crystal display according to Claim 9, wherein the translucent film is an absorption-type polarizing film.

11. **(Twice Amended)** The liquid crystal display according to Claim 1,
wherein said absorption-type polarizing film is disposed on the visible side of said liquid crystal cell such that the transmission axis of said absorption-type polarizing film is parallel with

~~the~~ a direction of ~~the~~ long axes of liquid crystal molecules located on the visible side of the liquid crystal layer in said liquid crystal cell while said reflection-type polarizing film is disposed such that the transmission axis thereof is parallel with, or orthogonal to ~~the~~ a direction of ~~the~~ long axes of liquid crystal molecules located on the side of the liquid crystal layer in said liquid crystal cell, opposite from the visible side thereof.

12. **(Twice Amended)** The liquid crystal display according to Claim 1,

wherein said absorption-type polarizing film is disposed on the visible side of said liquid crystal cell such that the transmission axis of said absorption-type polarizing film is orthogonal to ~~the~~ a direction of ~~the~~ long axes of liquid crystal molecules located on the visible side of the liquid crystal layer in said liquid crystal cell while said reflection-type polarizing film is disposed such that the transmission axis thereof is parallel with, or orthogonal to ~~the~~ a direction of ~~the~~ long axes of liquid crystal molecules located on the side of the liquid crystal layer in said liquid crystal cell, opposite from the visible side thereof.

13. The liquid crystal display according to Claim 1,

wherein said color filter is a selective transmission color filter for transmitting a light component at a specified wavelength only.

14. **(Amended)** The liquid crystal display according to Claim 1,

wherein said color filter comprises color filters in plural colors at different specified wavelengths which are arranged in ~~the~~ a same plane.

15. The liquid crystal display according to Claim 1,

wherein said color filter comprises color filters in three colors at specified wavelengths of light components in red, green and blue, arranged in a given order repeatedly and regularly.

16. The liquid crystal display according to Claim 1, wherein said color filter comprises color filters in three colors at specified wavelengths of light components in cyan, magenta and yellow, arranged in a given order repeatedly and regularly.

17. **(Twice Amended)** The liquid crystal display according to Claim 1, wherein said color filter is a color polarizing film capable of transmitting a light component of the light linearly polarized in the direction orthogonal to the ~~transmittable~~ transmission axis thereof and having a specified wavelength only, and absorbing light components of the light linearly polarized at other wavelengths while transmitting all light components of the light linearly polarized in the direction parallel with the transmission axis thereof.

18. The liquid crystal display according to Claim 1, wherein said color filter is a multi-layered dielectric coating capable of reflecting a light component of incoming light, and having a specified wavelength, while transmission light components of the incoming light at other wavelengths.

19. The liquid crystal display according to Claim 1, wherein the liquid crystal layer of said liquid crystal cell is composed of any from among twisted nematic liquid crystals, supertwisted nematic liquid crystals, and guest host liquid crystals.

20. The liquid crystal display according to Claim 1, wherein said color filter is disposed between said absorption-type polarizing film and said liquid crystal cell.

21. The liquid crystal display according to Claim 1, wherein said color filter is disposed between said liquid crystal cell and said reflection-type polarizing film.

U.S. Patent Appln. Serial No.: 09/269,501

22. The liquid crystal display according to Claim 1, wherein said color filter is disposed between one of the transparent substrates making up said liquid crystal cell and the liquid crystal layer.